

Further notes on bird distribution in northeastern Dpto. Santa Cruz, Bolivia, with two species new to Bolivia

by Andrew W. Kratter, María Dolores Carreño,
R. Terry Chesser, John P. O'Neill & T. Scott Sillett

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We report here on the continuing inventory of birds of the Parque Nacional Noel Kempff Mercado (PNNKM) in the northeastern corner of the Dpto. Santa Cruz in eastern Bolivia. One month was spent conducting fieldwork in two forest sites south of sites in the park surveyed in earlier expeditions to PNNKM (Bates *et al.* 1989, 1992). This inventory is part of a continuing cooperative project between the Museum of Natural Science at Louisiana State University (LSUMNS), the Museo de Historia Natural "Noel Kempff Mercado" at the Universidad Autónoma "Gabriel Rene Moreno" in Santa Cruz, Bolivia (MHNNKM), and the PNNKM.

The two sites were in tall humid forest along the base of the Serranía de Huanchaca. The first camp, 86 km ESE of the village of Florida (14°50' S, 60°25' W), was near the terminus of a new extension of a logging road that skirts the base of the Serranía and now reaches the Brazilian border in the southeast corner of the park. We surveyed this site from 31 July to 21 August 1990. It was approximately 3 km south of the Serranía's base, along a small arroyo flowing off the Serranía. Other than the road itself and the felling of scattered mahogany trees, the area showed little disturbance. The high densities of Spider Monkeys *Ateles paniscus* and several species of large cracids (*Pipile pipile*, *Pipile cufubi*, *Mitu tuberosa* and *Penelope jacquacu*) attested to low hunting pressure. The forest canopy averaged 35 m, with emergent trees reaching 50 m. The area was gently rolling, with steeper terrain north and east of the site. A small boggy area (approximately 5 ha) was 200 m downstream from the camp. Rather sparse stands of bamboo (*Guadua* sp.) occurred along the arroyos in the area, and undergrowth was generally sparse, with little epiphytic vegetation away from streams.

From 22 to 27 August, we surveyed a second site 60 km ESE of Florida (14°42' S, 60°39' W), approximately 4 km west of the Serranía's base on gently rolling terrain. The canopy here averaged only 20–25 m, with thicker vine and undergrowth vegetation than the first site. Bamboo, much more extensive here, was concentrated in two major patches, each with dense bamboo growth up to 15 m high, which was somewhat disturbed by cutting for construction materials.

The PNNKM area is an important zoogeographic area, not only because the nearby Madeira/Guaporé river system forms the boundary for many species replacements within allopatric superspecies groups (Bates *et al.* 1989), but also because this is one of the southernmost areas of humid tropical forest in western Amazonia. The first camp was

located in the closest humid forests in Bolivia that are continuous with the endemic-rich humid forests of Mato Grosso and Rondônia, Brazil. Several Rondônian endemics have been recently discovered in the PNNKM, indicating that some of these species cross the river barriers, probably in the headwaters where the rivers become narrower (Bates *et al.* 1989). The occurrence of bamboo is also of interest, because this habitat often harbours unique avian communities (Parker 1982, Parker *et al.* in press).

Apparently, there are at least two intra-generic species replacements between forest sites at the first site and those that have been surveyed further north in PNNKM (El Encanto, Los Fierros, and sites on the Huanchaca plateau: Bates *et al.* 1989, 1992): *Thamnomanes caesius* and *Sclerurus albigularis* at our first camp replace *T. saturninus* and *S. rufigularis* at the northern sites, respectively. Unfortunately, not one of these species was recorded at the second camp, which is geographically intermediate between the first camp and Los Fierros and El Encanto. However, neither of these species pairs may form a superspecies: *T. schistogynus* is the presumed allospecies of *T. caesius* (Meyer de Schauensee 1966), and species relationships within *Sclerurus* are uncertain. However, for 17 intensively sampled localities in northeastern Peru (specimen data from LSUMNS), another area of overlap for both species pairs, neither *T. caesius* and *T. saturninus* nor *S. albigularis* and *S. rufigularis* were collected at the same site, suggesting ecological replacement.

Several bamboo specialist species (e.g. *Celeus spectabilis*, *Simoxenops ucayalae*, *Automolus melanopezus*, *Cymbilaimus sanctaemariae* and *Cercomacra manu*) that have been recorded in similar bamboo in humid lowland forest from Dpto. Pando, Bolivia (Parker & Remsen 1987) to northern Mato Grosso, Brazil (Parker *et al.* in press), were not recorded in the bamboo groves in the PNNKM. Their absence might be explained by the small size of the stands or by the expected decrease of richness of forest birds at the periphery of the Amazon Basin. A number of forest species common further north (e.g. Dpto. Beni) are also missing without obvious ecological replacement in the PNNKM (e.g. *Eubucco richardsoni*, *Deconychura longicauda*, *Ancistrops strigilatus*, *Automolus infuscatus*, several *Philydor* spp. and *Terenura humeralis*).

We recorded two species not previously recorded from Bolivia and five species not previously known from Dpto. Santa Cruz; also collected were the first Bolivian specimens of *Capito dayi*. The following accounts give details for a presumed hybrid *Celeus*, as well as the new records for Bolivia and Dpto. Santa Cruz; details are also given for records of some poorly known species, especially those found in bamboo. All specimens are housed at the LSUMNS and the MHNNKM. Several hours of tape recordings made by AWK and JPO are housed at the Library of Natural Sounds (LNS), Laboratory of Ornithology, Cornell University.

RUFOUS-NECKED PUFFBIRD *Malacoptila rufa*

This species was uncommon in the undergrowth at the first camp, where three birds were netted. A fourth specimen, collected by RTC on the rim of the Serranía, about a 3-hour walk to the north of the first camp,

was perched 2 m up in rather low open forest. These are the first Bolivian records of this widespread but poorly known species of central Amazonia. Our specimens are most similar to *M. r. rufa*, the western Amazonian subspecies, but tend toward the southern subspecies *M.r. brunnescens* in a few characters. Like *brunnescens*, the Huanchaca specimens have browner, less rufescent, backs and the lores are lighter buff. However, the underparts are more similar to those of *rufa*, as is the crown streaking, but this character is slightly more distinct on the Huanchaca specimens than on *rufa* specimens from Peru (LSUMNS specimens). In these respects, our specimens are very similar to the descriptions of specimens of *M. rufa* by Zimmer (1931) from both banks of the upper Río Madeira and the left (west) bank of the lower portion of this river. Zimmer considered these specimens closest to *M. r. rufa*, but with some intermediate characters.

BLACK-GIRDLED BARBET *Capito dayi*

This species was uncommon in the canopy at the first camp. A female was collected by A. Yépez, and a pair was collected by TSS in tall humid forest at the first camp. The pair was foraging approximately 40 m up in a fruiting fig (*Ficus* sp.); another pair was observed likewise, feeding in the upper canopy of an emergent fig. The only previous Bolivian record of this species was a tape recording from El Encanto in the PNNKM, about 38 km northwest of this site (Bates *et al.* 1989). This species, largely restricted to the Rondônia Centre of endemism (Cracraft 1985), is replaced farther west in Bolivia (Dptos. Santa Cruz, La Paz, Cochabamba, and Pando) by *C. niger*.

Celeus lugubris × *C. elegans* hybrid

An adult female with characteristics intermediate between these two members of the *C. elegans* superspecies was netted in bamboo along the arroyo of the first site on 8 August. Three presumed hybrids between these species have been described from nearby Mato Grosso, Brazil (Short 1972). The specimen collected in the PNNKM is intermediate between *lugubris* and *elegans* in the following characteristics (measurements for *elegans* and *lugubris* from Short 1972): the entire forecrown and upper crown is chestnut like *elegans* (but somewhat lighter), but the rear feathers of the crest are long (*c.* 35 mm as compared to <25 mm for *elegans*) and blonde as in *lugubris*; the throat is chestnut like *elegans*, but a few blonde feathers, as in *lugubris*, are interspersed; the pale bars on the back are thin but distinct (hybrid, 1.75 mm wide; *lugubris*, 2.64 mm; *elegans*, ± solid chestnut), and the dark bars of the secondaries are thick and spread completely across the feathers (hybrid, 7.5 mm wide; *lugubris*, 2.81 mm, *elegans*, completely dark). The wing length is intermediate between the two species (hybrid, 148 mm; *lugubris*, range 138–146 mm, mean 141 mm; *elegans*, range 153–161 mm, mean 156.3 mm). The tail and culmen lengths are within the range of *elegans*. The sixth (outer) rectrices of our bird are both rufous, but have asymmetrical barring. The left rectrix has a complete basal bar and four partial black bars, and the upper bars are incomplete across the rachis. In contrast, the right outer rectrix has four black spots on the feather's edge, and is completely rufous adjacent to the rachis. Although there is some overlap in this character,

most *elegans* have rufous outer rectrices with black bases, whereas the rufous outer rectrices of *lugubris* are either fully or partially barred black (Short 1972).

The hybrid described herein is most similar to the male described by Short. The head colour of the two female hybrids from Mato Grosso is buffy, whereas ours is brown-chestnut, with flecks of blonde in the throat; the male hybrid has a head pattern similar to our bird, but the crest feathers are shorter (*c.* 30 mm) and the blonde is more extensive in the forecrown. Both female hybrids from Mato Grosso have superficially solid rufous secondaries, and only slight barring on the inner webs, whereas our bird has all secondaries fully barred with chestnut. The male hybrid from Mato Grosso has the inner secondaries half barred and the outer secondaries fully barred. The black barring of all hybrids described by Short is rufous, whereas our specimen has pale yellow barring. The outer rectrices of our bird are similar to the male hybrid described by Short. The intermediate wing length in our specimen is also similar to these birds.

The locality of the Huanchaca hybrid may be only 50 km northwest of the collection site of two of the Mato Grosso birds, where several "normal" *C. lugubris* were also collected (Short 1972). Apparently *elegans* and *lugubris* meet in the ecotone between dry chaco woodland and humid Amazonian forests. Humid forests in the vicinity of the first camp are limited to a narrow band (10 to 20 km wide) along the base of the Serranía de Huanchaca; thus the location should be in the vicinity of expected sympatry, even though the specimen was collected well within humid forest. *C. elegans* that were presumed to be pure have been seen in humid forests in the PNNKM (Theodore A. Parker III in 1989, and several by TSS, JPO and RTC in 1990), but no specimens have been collected. *C. lugubris* has been collected in drier forests approximately 420 km west of the park at San Juan in Dpto. Beni (Olrog 1963) and approximately 375 km southwest in Dpto. Santa Cruz (near Río Quizer, LSUMNS), but is unknown from the PNNKM. At the Beni site, Olrog (1963) also collected a specimen that he published as *Celeus "roosevelti"*. This "species," known only from the type from Mato Grosso, was later determined by Short (1972) to probably represent a *C. elegans* × *lugubris* hybrid. Therefore, it is quite possible that Olrog's specimen represents another *C. elegans* × *lugubris* hybrid.

GREY-THROATED LEAFSCRAPER *Sclerurus albigularis*

This species was fairly common in the low undergrowth at the first site, where it was recorded almost daily and six were collected. It has been recorded farther west in the Dpto. Santa Cruz (Remsen *et al.* 1986), but had not been previously recorded in the PNNKM. This record is of biogeographical interest because the Amazonian distribution of the species was thought to be restricted to the Andean foothills in the Upper Tropical and Lower Subtropical Zones (Meyer de Schauensee 1966). Our record, at the hilly base of the Serranía Huanchaca, extends the distribution 350 km east across apparently unsuitable lowland habitats. Other species in the PNNKM, including *Hirundinea ferruginea*, *Tangara cyanicollis*, *Basileuterus culicivorus* and *Carduelis olivacea*, show a similar

disjunction (Bates *et al.* 1992). *S. albigularis* appears to be replaced in the northern portion of PNNKM (Los Fierros and on the plateau) by *S. rufigularis* (Bates *et al.* 1989; J. M. Bates, pers. comm.). In Peru, *S. albigularis* and *S. rufigularis* tend to segregate elevationally: *S. albigularis* is a foothill species, whereas *S. rufigularis* is a lowland species (Parker *et al.* 1982).

Our specimens, possibly representing a new subspecies, differ from described subspecies of *S. albigularis* in a number of characters: the breast and belly are greyer than other subspecies; the upper breast and back are less rufescent; and the rump is concolor with the brownish back (only the upper tail coverts are rufous). Mensural characters in our specimens ($n=7$) also differ significantly from the nearest subspecies (*S. a. albicollis* from Bolivia, $n=7$, and *S. a. zamorae* from lowland Peru, $n=9$; specimens from LSUMNS). The bill is shorter than *albicollis* (ANOVA: Scheffe's $F=5.869$, $P<0.01$). The wing chord is shorter than *zamorae* (Scheffe's $F=5.016$, $P<0.01$). The tail is shorter than both *albicollis* (Scheffe's $F=3.131$, $P<0.05$) and *zamorae* (Scheffe's $F=8.589$, $P<0.001$), and the tarsi are shorter than both *albicollis* (Scheffe's $F=13.507$, $P<0.001$) and *zamorae* (Scheffe's $F=11.479$, $P<0.001$). At the species level, the white throat with a grey lower border, rufous breast band, brownish back and rufous upper-tail coverts indicate that our specimens are *S. albigularis*.

FASCIATED ANTSHRIKE *Cymbilaimus lineatus*

This species was uncommon in the subcanopy at the first camp, where a male was collected by AWK in the viney subcanopy of humid forest. Other individuals were occasionally seen and heard, often associated with *Herpsilochmus rufimarginatus*, *Cercomacra cinerascens* and other subcanopy birds. The antshrikes foraged exclusively in vines and denser foliage. Although these are the first records of this Amazonian species for the Dpto. Santa Cruz, there are other records from southern Amazonia from northwestern Mato Grosso in Brazil (Cardoso da Silva & Oniki 1988).

CINEREOUS ANTSHRIKE *Thamnomanes caesius*

This widely distributed Amazonian species was a fairly common member of understorey mixed-species flocks at the first camp, where heard daily; five were collected. These are the first records for Bolivia. *Thamnomanes caesius* is apparently replaced by *T. saturninus* in similar humid forests in the northern part of the park (Los Fierros, El Encanto, camps on the Huanchaca plateau; Bates *et al.* 1989, 1992), as close as 38 km northwest of the first camp. This species ranges across central Amazonia, a distribution somewhat similar to that of *Malacoptila rufa*. *T. schistogynus*, the presumed allospecies of *T. caesius* (Meyer de Schauensee 1966), occurs along the Andean foothills, 500 km west of the Serranía Huanchaca in Dpto. Cochabamba. The Andean foothill/Serranía Huanchaca distribution in *Thamnomanes* is shared by other pairs of closely related taxa, such as *Capito niger*/*C. dayi* and *Sclerurus albigularis albicollis*/*S.a.* ssp. nov.? (see above). Separating these pairs is the Río Mamoré/Río Grande drainage, a major river system in southwest Amazonia.

STRIATED ANTBIRD *Drymophila devillei*

This bamboo specialist was rare at the second camp. A juvenile female was collected from the vicinity of the second site by Tristan J. Davis during the 1989 LSUMNS/MHNNKM expedition. A singing male was collected in 1990 by JPO in bamboo at the second camp, and a second bird was heard singing in another bamboo patch. These specimens are most similar to descriptions of the subspecies *D. d. subochracea*, known only from the type specimen from central Brazil and recent specimens from Rio Arapuaana, Mato Grosso (Novaes 1976). There have also been recent sight records of *D. d. subochracea* from Alta Floresta, Mato Grosso (Parker *et al.* in press). Although much of the forest avifauna of PNNKM has close affinities with that of Rondônia, Brazil (Bates *et al.* 1989), it is the more southern and eastern *D. d. subochracea* that is found in the PNNKM and not the nominate white-bellied race, which is found in Rondônia and Dpto. Pando (Parker *et al.* in press).

DUSKY-TAILED FLYCATCHER *Ramphotrigon fuscicauda*

This species was uncommon at both sites, but was much more frequently found at the second site. One bird was collected at the first site, and four at the second site. This species is often associated with bamboo (Parker 1984), and so it is not surprising that it has not been recorded from the other forest sites inventoried in the PNNKM, none of which have significant stands of bamboo (Bates *et al.* 1989, 1992). This little-known bird was previously recorded in Bolivia only from Dptos. La Paz and Pando (Remsen & Traylor 1989). Our records, the first for Dpto. Santa Cruz, extend the range of the species 700 km to the southeast, although it has been recently recorded to the northeast of Alta Floresta, Mato Grosso (Parker *et al.* in press).

LARGE-HEADED FLYCATCHER *Ramphotrigon megacephala*

This species is even more restricted to bamboo than is *R. fuscicauda* (Parker 1984). Specimens were netted in bamboo understorey at the first ($n = 1$) and second sites ($n = 5$). It was more common than *R. fuscicauda* at both camps (see above), but like that species, *R. megacephala* was also restricted to bamboo groves. The mournful, two-note, descending song of this species was frequently heard in the early morning. Individuals made short sally strikes to bamboo leaves from midlevel (3–6 m) perches in bamboo groves. The species had been recorded from lowland bamboo in western Dpto. Santa Cruz (Remsen *et al.* 1987), but was unknown this far east in Bolivia. It has also been recently discovered in Rondônia and Mato Grosso (Parker *et al.* in press).

WHITE-CRESTED SPADEBILL *Platyrinchus platyrhynchos*

This species was apparently uncommon at both sites. A male, netted in the understorey of the first site on 12 August, was the first specimen for Dpto. Santa Cruz. The only other Santa Cruz record of this species is represented by recordings made in PNNKM in 1989 (T. A. Parker III, pers. comm.).

TOOTH-BILLED WREN *Odontorchilus cinereus*

This canopy wren was uncommon at the first site and fairly common at the second site. Two were collected by TSS and AWK from low, viney

forest just east of the second site. This poorly known species is thought to associate mainly with canopy mixed-species flocks (Bates *et al.* 1992), but we also noted them skulking in the viney subcanopy (c. 5–8 m up) of forest trees, where they were usually in the presence of *Parula pitiayumi* and *Tachyphonus luctuosus*. The wrens had call notes similar to those of *P. pitiayumi*, but they also gave harsh scolding notes, reminiscent of other wrens. The first Bolivian records of this little-known species, and the only records outside Brazil, were obtained in 1989, farther north in the PNNKM (Bates *et al.* 1992).

ROSE-BREADED CHAT *Granatellus pelzelni*

Our only record of this rare species was a male netted in the bamboo understorey of the second camp on 26 August. This species had been taperecorded in the PNNKM (Bates *et al.* 1989), but this was the first specimen for Dpto. Santa Cruz. This Amazonian species is local and uncommon throughout its range (Ridgely & Tudor 1989).

SLATY GROSBEAK *Pitylus grossus*

One male was collected by A. Yépez in humid forest at the first camp on 16 August. This uncommon species was occasionally heard singing in dense, tall vine tangles in the mid to upper canopy, but was shy and difficult to see. These records are at the southern periphery of the range of this widespread species (Ridgely & Tudor 1989) and are the first for Dpto. Santa Cruz, and for the PNNKM.

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Addresses: Andrew W. Kratter, R. Terry Chesser, and T. Scott Sillett, Museum of Natural Science and Department of Zoology and Physiology, Louisiana State University, Baton Rouge, LA 70803, U.S.A.; John P. O'Neill, Museum of Natural Science, Louisiana State University, Baton Rouge, LA 70803, U.S.A.; María Dolores Carreño, Museo de Historia Natural "Noel Kempff Mercado," Universidad Autónoma "Gabriel Rene Moreno," Santa Cruz, Bolivia.

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The taxonomy of Steppe and Tawny Eagles, with criteria for separation of museum specimens and live eagles

by William S. Clark

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The Steppe Eagle of the steppes and plains of Asia and eastern Europe and the Tawny Eagle of the savannas of India and Africa were long considered separate species, *Aquila nipalensis* and *A. rapax* respectively, in checklists (Peters 1931, Swann 1931) and regional bird handbooks (e.g. Baker 1928).

Beginning in the 1950s, some authorities (Meinertzhagen 1951, 1954, Vaurie 1965, Brown & Amadon 1968, and others) treated them as races of a single species, for which the oldest name is *A. rapax*. Others, however, continued to regard them as separate species (Grossman & Hamlet 1964, Porter *et al.* 1981, Christensen *et al.* 1981; see especially Brooke *et al.* 1972, Amadon 1982). Most who considered them races (e.g. Glutz